BLM UAS Program – Wildland Fire Application of Micro-UAS

Background: The BLM has been researching and testing the capabilities of micro-UAS in a multitude of applications including wildland fire suppression. Further testing in this role is required in order to determine the true utility of this technology.

Goal: Develop viable use cases for UAS in support of incident goals and objectives.

Objective: Mobilize a micro-UAS crew to a suppression incident to work directly with ground crews or planning personnel.

Micro-UAS capabilities:

- Light and easily transportable system, which can be carried on the fireline.
- Aircraft can fly up to ½ mile from the operator at an altitude up to 400' AGL.
- Sensor is capable of high-resolution video and still image capture. Imagery can be viewed in real-time from the operator's tablet (ios device).
- Imagery can be stored and processed into a variety of planning or analysis products such as ortho-photos or geo referenced maps.

Micro-UAS Limitations:

- Battery life is 15-20 minutes per flight. The operator can carry up to 10 batteries in the field.
- The aircraft can't fly in winds over 25mph.

Crew: The aircraft is operated by one person. An observer is required for safety of flight purposes. A data specialist is required to generate map products. The crew is relegated to a 14-hour duty day and 8 hours of flight time/day. Crewmembers have an arduous fitness rating and have significant fire/aviation/aerial supervision experience.

Authorizations:

- Incident commander and agency administrator approval
- An approved Project Aviation Safety Plan (PASP)
- FAA ECOA, Class G Notification, and NOTAM

Attachments:

- Aircraft Data Sheet_3DR Solo
- BLM Incident Order Information